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(71)Applicant : SONY CORP

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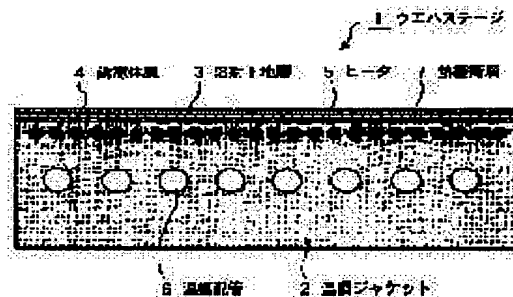
(72)Inventor : KADOMURA SHINGO  
SHIROSAKI TOMOHIDE  
HIRANO SHINSUKE  
TAKATSU MEGUMI

## (54) WAFER STAGE AND MANUFACTURE THEREOF AND DRY-ETCHING APPARATUS

## (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a wafer stage for enabling high temperature heating of a wafer by providing an electrostatic chuck and by eliminating the trouble upon high temperature heating.

**SOLUTION:** In case where a wafer stage 1 is constructed so that it gives an electrostatic chuck function to a temperature control jacket 2, the temperature control jacket 2 is made of aluminum or aluminum alloy within which a heater 5 and a thermal medium pipe 6 connected to temperature control means are buried and a thermal buffer layer 7 is integrally provided on the upper surface thereof. The thermal buffer layer 7 is formed by making aluminum or aluminum alloy flow into the holes of a porous Al<sub>2</sub>O<sub>3</sub> plat-shaped member and by compounding them. A dielectric film 4 consisting of an insulating material is formed on the thermal buffer layer 7 of the temperature control jacket 2 through a fusion-jet process. The temperature conditioning jacket 2 and the dielectric film 4 perform the function as the electrostatic chuck because the temperature control jacket 2 is used as an electrode.



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